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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,324	04/13/2006	Grant Charlwood	U 015741-7	1520
140	7590	10/18/2010	EXAMINER	
LADAS & PARRY LLP 26 WEST 61ST STREET NEW YORK, NY 10023			LAUX, JESSICA L	
			ART UNIT	PAPER NUMBER
			3635	
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			10/18/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

nyuspatactions@ladas.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/532,324	<b>Applicant(s)</b> CHARLWOOD, GRANT	
	<b>Examiner</b> JESSICA LAUX	<b>Art Unit</b> 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 12-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 9/13/2010 have been fully considered but they are not persuasive.

Applicant's argument that the beams of Belgian Patent 891445, EP 1251217, and EP 1206917 are not made by roll forming nor could they be made by roll forming is not persuasive. Applicant submits that the beams of the prior art, particularly the beam of 891445 is made by folding and therefore cannot be made by roll forming; this is not persuasive as the Belgian Patent in no way states or discloses that the beam is not made by roll forming and roll forming includes folding steps (as disclosed by applicant throughout the specification, where applicant's roll formed beam includes folds in the forming process). The beam of Belgian Patent 891445 discloses all the same structure as applicant's claimed beam except for the seam structure. EP 1251217 and EP 1209174 disclose the same seam structure as applicants claimed beam, therefore the structure of the prior must be capable of being formed by roll forming, just as applicant's beam is capable of being formed by roll forming.

Belgian Patent 891445 discloses that it is desirable and beneficial to have a beam with the claimed layered structure, and EP 1251217 and EP 1206917 disclose that it is known and desirable to have beams with the claimed seam structure. One of ordinary skill in the art has good reason to pursue known options within his or her technical grasp (in the instant case one has good reason to pursue the known options of beams with layers or the folded seam structure) and to modify or substitute one known

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element for another and if the result yielded is predictable it is likely not innovation but obviousness. Therefore, pursuing and combining/substituting known options, such as disclosed by the prior art noted above to achieve a predictable result of strong, durable and lightweight beam would have been obvious to one of ordinary skill in the art.

The limitation a “roll formed” beam is considered a product-by-process limitation, where “roll formed” is a process by which the beam is made. The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP 2113. If the product-by-process claim is the same as or obvious from a product of the same prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir.1985). In the instant case the claimed structure of applicant’s beam is the same as or obvious from a product of the same prior art and is therefore unpatentable even though the prior art may be made by a different process.

### ***Specification***

The disclosure is objected to because of the following informalities:

- page 3, lines 3-12 appear to be redundant recitations of the same sentence;
- page 3, line 3 “at” should be “are”;
- page 4, line 19 “substantial” should be “substantially”

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recites an apparatus/article drawn to a beam and then also recites method/process limitations of forming that beam. This is confusing as it appears that the claim includes subject matter crossing two separate and distinct statutory classes; and it is unclear what applicant intends as the meets and bounds of the claim.

It is noted that the claim is considered an apparatus/article claim drawn to a beam as the limitation, as originally presented, of a “roll formed” beam is considered a product-by-process limitation, where “roll formed” is a process by which the beam is made.

Further it is noted that a previous restriction was made in which applicant elected the apparatus not the method of forming a roll formed beam. Therefore, any method/process of forming a roll formed beam is considered non-elected. As applicant presents no other claims clearly drawn to the apparatus it is unclear which statutory class applicant intends for claim 1.

The claim will be examined as best understood, where it is understood that the claim is drawn to an apparatus/article of a beam, made by the process of roll forming (note the product by process paragraph above).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-6, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foreign No. 891445 (as submitted by applicant) in view of EP 1206917 or EP 1251217 (as submitted by applicant).**

Claims 1-2, 4-6, 9, and 11. 891445 discloses a beam of substantially rectangular cross-section formed from a unitary piece of metal, the beam comprising:

opposed first and second substantially parallel walls formed with at least three adjacent layers of the piece of metal (generally at 3, 4 of figures 1-2 or 5-6), where the first and second walls are smaller than the third and fourth walls, the at least three layers of the piece of metal being substantially parallel to the first and second substantially parallel walls (as seen in the figures);

wherein the three layers in the first and second walls are formed from two layers of metal spanning approximately half the width of the first and second walls and one layer spanning all of the width of the first and second walls, wherein the two half width layer form the beam exterior (figures 1, 5) or the beam interior (figures 2, 6) and

opposed third and fourth substantially parallel walls (1) between the first and second walls.

891445 does not expressly disclose one of the third or fourth walls has a seam joining two opposed longitudinal edges of the piece of metal.

EP 1206917 or EP 1251217 disclose a beam from a unitary piece of metal having first through fourth walls and further one of the third or fourth walls having a seam (4, 19 respectively) joining two opposed edges of the metal.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to combine known design options within his/her technical grasp to achieve the predictable results of a beam of a unitary piece of material have multiple layers at the first and second sides and a seam closing the piece on the third or fourth side to create a structurally solid beam (where one of skill would be motivated to pursue the known options to maximize strength and minimize production/material costs so that the beam is suitable for its intended purpose, as beams are commonly used in various situations having various strength and stability requirements).

The limitation in the claims “formed by a continuous roll forming process” and “the roll forming process comprises the steps of...” are considered to be product-by-process limitations. The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP 2113. If the product-by-process claim is the same as or obvious from a product of the same prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir.1985). Even though each reference individually does not disclose the claimed invention, Belgium Patent 891445 clearly discloses a beam have the same fold structure as applicant's claimed beam (even though it may be made by a different process) and EP 1251217 clearly discloses a beam having a seam along the third for fourth side just as

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applicant's claimed beam (even though it may be made by a different process). Thus, all the structural features of applicant's claimed invention are known in the art.

Therefore applicant's claimed invention is unpatentable as applicant's invention is the same as or obvious from the product of the combination of prior art references, even though the prior art may have been made by a different process. Further applicant has not disclosed how the limitation "formed by continuous roll forming" imparts structural features which would distinguish applicant's invention over the prior art (applicant's remarks regarding the seam placement are not persuasive as the prior art clearly discloses a seam placement as claimed by applicant in a product made by a process other than roll formed; and applicant's remarks that the prior art is made by folding is not persuasive as applicant discloses throughout the specification that the claimed beam includes folding steps in the roll forming process).

Claim 3. The beam as in claim 2 above where it is not expressly disclosed that the three layers each extend the width of the beam, but rather that one layer does and two layers extend half the width.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the layers of 891445 to each extend the full width of the beam to increase strength and stability by reducing points of weakness (as it is well known that a discontinuous layer would have a point of weakness at the juncture, where a continuous layer would not).

Claim 10. The beam as in claim 9 above, where it is not expressly disclosed that there are three indentations in each of the third and fourths walls.



It is notoriously common and well known that additional indentations provide additionally stability and strength. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide three indentations equally spaced (to evenly distribute the strength and for manufacturing efficiency) in the third and fourth wall (where one of the indentations is formed by the seam as disclosed by EP 1206917) to create a superior beam.

**Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foreign No. 891445 (as submitted by applicant) in view of EP 1206917 or EP 1251217 (as submitted by applicant) and further in view of WO 93/15353 (as submitted by applicant).**

Claim 7. The beam as claimed in claim 1 above, where it is not expressly disclosed that the beam also includes at least two adjacent layers of metal in the region of its four corners directed away from the first and second walls.

WO 93/15353 discloses a metal beam that includes multiple layers of metal at the first and second sides and additionally includes at least two adjacent layers of metal in the region of its four corners directed away from the first and second walls (figures 2,4)

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the beam of claim 1 as presented above to have multiple layers of metal at the corners to provide additional reinforcement and stability predictably resulting in a stronger beam.

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Claim 8. The beam as in claim 7 above, where it is not expressly disclosed that there are three layers of metal in the region of the four corners.

However, it is notoriously common and well known that additional layers provide additional support, strength and stability to the product. Further it is noted that 891445 discloses three layers. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the beam of claim 7 above to have three layers of metal at the four corners to achieve a structurally superior beam capable of withstanding higher loading/forces.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jessica Laux/  
Examiner, Art Unit 3635